# Work Order ID 120929

*Friday, June 13, 2014 3:07:49 PM*

*120929*



**Item ID:** D4004-5 **Accept** *N900040100* **Setup Start** *NS1*

**Revision ID:** **Stop** *NS2*

**Item Name:** Bottom Strap Attach Bracket

**Start Date:** 6/16/14 **Start Qty:** 10.00 *10*

**Required Date:** 6/20/14 **Req'd Qty:** 10.00 *10*

**Reference:** **Cust Item ID:** **Customer:**

**Approvals:** **Process Plan:** _____ **Date:** 14-6-13 **Tooling:** _____ **Date:** _____ **Run Start** *NR1*

**QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop** *NR2*

| Draw Nbr | Revision Nbr |
|---|---|
| D4004 | B |

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 100 | BAND SAW | 0.00 | | | | 10x | | 14/06/17 | DAS 3f 9-89 |
| *100* | | | | | | | | | |
| Bandsaw | | | | | | | | | |
| Jeaspa Bandsaw | | | | | | | | | |

**Memo** 0.00

1-Cut D3033-144 extrusion to length per D4004-5 detail of dwg D4004

Ensure cut is started at correct place per dwg

Batch: 14636

2-Deburr

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 105 | | 0.00 | | | | 10x | | 14/06/18 | DAS 3f 9-89 |
| *105* | | | | | | | | | |
| Small Fab | | | | | | | | | |
| Small Fab | | | | | | | | | |

**Memo** 0.00

Drill and c'sink holes as per dwg and trim part to lenght as required.

DQA: _____ Date: _____

# WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

**DISPOSITION**

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Suspected Unapproved ☐

**AGAINST DEPARTMENT/PROCESS**

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

| Root Cause | | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---|---|---|---|---|---|---|---|---|---|---|
| Design | ☐ | | | | | | | | | |
| Doc/Data | ☐ | | | | | | | | | |
| Equip/Tooling | ☐ | | | | | | | | | |
| Handling/Pre | ☐ | | | | | | | | | |
| Material | ☐ | | | | | | | | | |
| Operator | ☐ | | | | | | | | | |
| Offset/Setup | ☐ | | | | | | | | | |
| Process | ☐ | | | | | | | | | |
| Supplier | ☐ | | | | | | | | | |
| Training | ☐ | | | | | | | | | |
| Transport | ☐ | | | | | | | | | |
| Unapproved | ☐ | | | | | | | | | |

**FAULT CATEGORY**

**Landing Gear**

- ☐ Bending
- ☐ Centre Not Concentric
- ☐ Cracks
- ☐ Crimp/Kink/Ripple/Wave
- ☐ Cuffs
- ☐ Crushing
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Marks/Chatter
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

**General**

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damage/Defect
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drawing
- ☐ Drill Holes
- ☐ Finish
- ☐ Fit/Function
- ☐ Folio/Program
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete/Unqualified
- ☐ Instructions Incomplete/Unclear
- ☐ Misaligned/off center
- ☐ Mislabeled
- ☐ Misread
- ☐ Off-set
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Set-up
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other _____

**Item ID:** D4004-5 **Accept** *N9000401100* **Setup Start** *NS1*
**Revision ID:** **Stop** *NS2*
**Item Name:** Bottom Strap Attach Bracket
**Start Date:** 6/16/14 **Start Qty:** 10.00 *10*
**Required Date:** 6/20/14 **Req'd Qty:** 10.00 *10*
**Reference:** **Cust Item ID:** **Customer:**

**Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
**QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

**Run Start** *NR1*
**Stop** *NR2*

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 110 *110* QC Quality Control | QC5- Inspect part completeness to step on W/O | 0.00 | SmP | | | 10 | | | |
| | **Memo** | 0.00 | | | | | | | |
| 120 *120* HandFinish Hand Finishing | Chemical Conversion Coat per QSI005 4.1 | 0.00 | | | | 10 | 1 | 6/14-7-9 | |
| | **Memo** | 0.00 | | | | | | | |
| 130 *130* QC Quality Control | QC7-Inspect Chemical Conversion Coat | 0.00 | SmP | | | 10 | | | |
| | **Memo** | 0.00 | | | | | | | |

DQA: _____ Date: _____

# WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

**DISPOSITION**

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

**AGAINST DEPARTMENT/PROCESS**

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐ ☐

| Root Cause | | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---|---|---|---|---|---|---|---|---|---|---|
| Design | ☐ | | | | | | | | | |
| Doc/Data | ☐ | | | | | | | | | |
| Equip/Tooling | ☐ | | | | | | | | | |
| Handling/Pre | ☐ | | | | | | | | | |
| Material | ☐ | | | | | | | | | |
| Operator | ☐ | | | | | | | | | |
| Offset/Setup | ☐ | | | | | | | | | |
| Process | ☐ | | | | | | | | | |
| Supplier | ☐ | | | | | | | | | |
| Training | ☐ | | | | | | | | | |
| Transport | ☐ | | | | | | | | | |
| Unapproved | ☐ | | | | | | | | | |

**FAULT CATEGORY**

**Landing Gear**

☐ Bending
☐ Centre Not Concentric
☐ Cracks
☐ Crimp/Kink/Ripple/Wave
☐ Cuffs
☐ Crushing
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Marks/Chatter
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☐ Contamination
☐ Countersink
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**Item ID:** D4004-5 **Accept** *N900040100* **Setup Start** *NS1*
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**Run Start** *NR1*
**Stop** *NR2*

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 140 | Identify as per dwg & Stock Location: STO77 | 0.00 | | | | | | | |
| *140* | | | | | | 10X | DAS 28 ~~9-89~~ | JUL 10 2014 | |
| Packaging | **Memo** | 0.00 | | | | | | | |
| Packaging | | | | | | | | | |
| 150 | QC21- Final Inspection - Work Order Release | 0.00 | | | | | | | |
| *150* | | | | | | MCS 14-07-10 | | | |
| QC | **Memo** | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |

YMF 14-7-10

DQA: _____ Date: _____

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Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐ ☐

| Root Cause | | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
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| Design | ☐ | | | | | | | | | |
| Doc/Data | ☐ | | | | | | | | | |
| Equip/Tooling | ☐ | | | | | | | | | |
| Handling/Pre | ☐ | | | | | | | | | |
| Material | ☐ | | | | | | | | | |
| Operator | ☐ | | | | | | | | | |
| Offset/Setup | ☐ | | | | | | | | | |
| Process | ☐ | | | | | | | | | |
| Supplier | ☐ | | | | | | | | | |
| Training | ☐ | | | | | | | | | |
| Transport | ☐ | | | | | | | | | |
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☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge

☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled

☐ Other

_____
_____
_____

# Picklist Print

*Friday, June 13, 2014 3:07:56 PM*



**Work Order ID:** 120929

*120929*

**Parent Item:** D4004-5

*D4004-5*

**Parent Item Name:** Bottom Strap Attach Bracket

**Start Date:** 6/16/14 **Required Date:** 6/20/14

**Start Qty:** 10.00 **Required Qty:** 10.00

**Comments:** IPP rev A 09.12.15 new issue EC verified by:DD IPP Rev:B 10.05.17 as per ECN10-562 DD verf:EC IPP Rev:C 12.03.07 as per dwg rev.b DD verf: EC

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D3033-144 | | Manufactured | No | | | 100 | f | 22.0000 | 0.41 | 5 | | DAS 36 9-89 | |
| *D3033-144* Seat Track | | | | | | | | | ** | | 14/06/17 | | |

| Location | Loc Qty | Loc Code |
|---|---|---|
| ST209a | 22 | |
| 108482 | 4 | |
| 111036 | 18 | |

5

DQA: _____ Date: _____

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| Handling/Pre | ☐ | | | | | | | | | |
| Material | ☐ | | | | | | | | | |
| Operator | ☐ | | | | | | | | | |
| Offset/Setup | ☐ | | | | | | | | | |
| Process | ☐ | | | | | | | | | |
| Supplier | ☐ | | | | | | | | | |
| Training | ☐ | | | | | | | | | |
| Transport | ☐ | | | | | | | | | |
| Unapproved | ☐ | | | | | | | | | |

**FAULT CATEGORY**

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☐ Folio/Program
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☐ Inspection Incomplete/Unqualified
☐ Instructions Incomplete/Unclear
☐ Misaligned/off center
☐ Mislabeled
☐ Misread
☐ Off-set
☐ Out of Calibration
☐ Out of Sequence

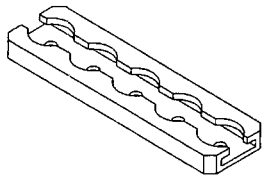
☐ Outside Dimensions
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge

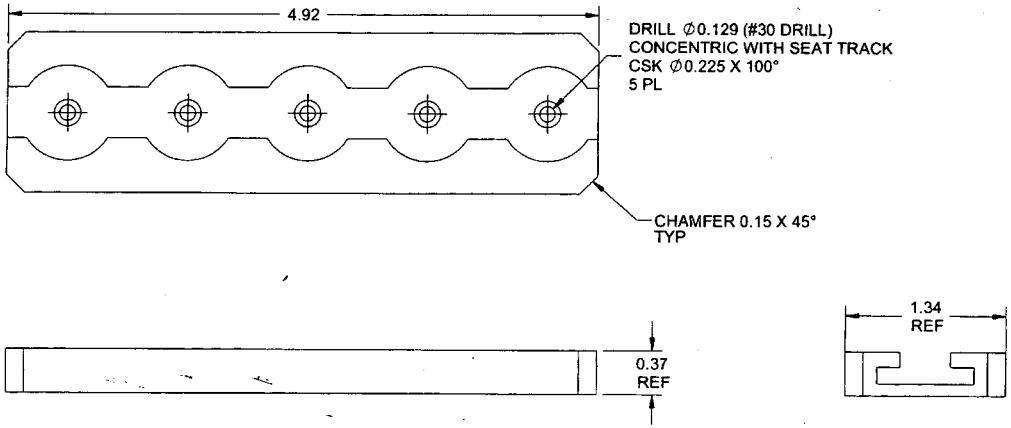
☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled

☐ Other

_____
_____
_____

| DART AEROSPACE PART NUMBER | JOHN CAMERON AVIATION PART NUMBER |
|---|---|
| D4004-5 | JCA-M47-2-23 |






SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 120929
14-6-13

**D4004-5 BOTTOM STRAP ATTACH BRACKET**

RELEASED
2012 -03- 02

NOTES:
1) MATERIAL: MADE FROM ANCRA P/N 40456-11-144
OR BROWNLINE P/N 20276-144-0-0
OR D3033-144
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
7) WEIGHT: 0.14 lbs

| | | |
|---|---|---|
| DESIGN | | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA |
| DRAWN | DC | |
| CHECKED | | DRAWING NO. D4004 REV. B |
| MFG. APPR. | | SHEET 7 OF 11 |
| APPROVED | | TITLE SIDE RESTRAINT SCALE NTS |
| DE APPR. | | |
| DATE 12.02.27 | | |

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# DART AEROSPACE LTD

DART AEROSPACE

Description: Bottom Strap Attach Bracket Work Order: D4004-5

Inspection Drawing: D4004 Rev: B Part Number: 120929

## INSPECTION SHEET

| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|---|---|---|---|---|---|---|
| 4.92 | ±.070 | 4.92 | ✓ | | V | SP-11 |
| 0.15 X 45° | ±.1/2° | 0.15 X 45° | ✓ | | V | SP-11 |
| Ø.129 | ±.000 .005 | Ø.129 | ✓ | | V | SP-11 |
| Ø.285 X 100° | | Ø.285 X 100° | ✓ | | V | SP-11 |

| Measured by: | Checked By: | QC inspector: | Engineering Approval (*if necessary* |
|---|---|---|---|
| DAS 30 9-89 | DAS 36 9-89 | 27 0-09 | |
| Date 14/07/02 | Date 14/07/02 | Date 14/7/10 | Date |